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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,520	09/30/2003	Henning Gold	JAA 216T2	6103

7590 06/10/2005  
Horst Kasper  
13 Forest Drive  
Warren, NJ 07059

EXAMINER
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SCHWARTZ, CHRISTOPHER P

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/675,520

Applicant(s)

GOLD ET AL.

Examiner

Christopher P. Schwartz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

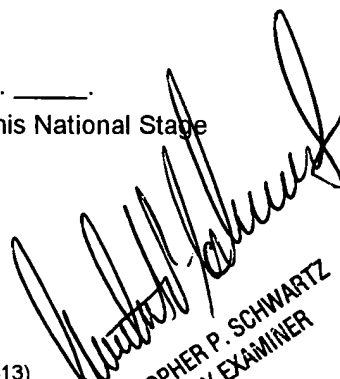
- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-52)
- 6) ☐ Other: \_\_\_\_\_

  
CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER

### **DETAILED ACTION**

1. Applicant's amendment filed 3/15/05 has been received and considered. Claims 1-24 are now pending.

#### ***Claim Objections***

2. Claim 9 objected to because of the following informalities: Claim 9 should the limitation "at least about 5 percent..." be 500 percent? See the specification at page 16.. Claims 18,19 contain the same problems. Appropriate correction is required.

#### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first, second, and third bore-holes as now claimed in claims 18-24 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The first, second and third tapered bore-holes were not found in the specification.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Due to the numerical identification of the "bore-holes" it becomes unclear exactly what structure applicant considers to be the "first, second and third tapered bore-holes" in the drawings, although it appears these claims are directed to figures 3 or 8.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3824932 ('932) in view of Yamaoka and the British patent '780.

Regarding claims 1-17 DE '932 discloses a gas spring damper having a similar structure to that of applicant's, as readily apparent from figure 2. Note the throttles at 66,68.

The British patent '780 shows such "throttles" in the several figures 2,3,5,11. Note the varying shapes provided and what may be considered to be "first, second and third tapered bore-holes" in figures 3 and 11 (see element numeral 9 in fig 3) due to the strong similarity between this design and that of applicant's. Such a design is old and well known, however.

Yamaoka discloses in column 7 lines 27-36 that "the difference between the fluid pressures before and behind each of the first and second constant orifices ... is decreased and the flow velocity of the working fluid passing through each of the orifices

is decreased gradually so that the Reynolds number of the fluid passing through the respective orifices is decreased". This reduces fluid noise. It can therefore be seen it is known to vary the geometry of piston fluid passages (i.e. shape, cross section, size etc) to vary the fluid flow through the piston dependent upon the level of damping forces desired and/or to prevent unwanted noise. It is also notoriously well known to vary the shapes and sizes dependent upon what type of fluid flow is desired – laminar or turbulent. Although not applied see the references to Dressell '101, de Carbon '864 and Tokasz for a discussion of turbulent and laminar fluid flow(s) as related to the size and/or shape of the flow orifices.

Because it is notoriously well known in the art to vary the geometry of piston fluid passages (i.e. shape, cross section, size etc) to adjust the damping properties of an absorber or spring to desired criteria one having ordinary skill in the art at the time of the invention would have found it obvious to have modified the passages 66,68 of DE '932 as taught by '780 and Yamaoka for this reason.

Applicant's limitations in the remaining claims directed to the specifics of the shape of the piston fluid passages are simply an obvious alternative design equivalent of the piston fluid passages in DE '932, as modified above, simply dependent upon the damping characteristics of the spring desired.

### ***Response to Arguments***

9. Applicant's arguments filed 3/15/05 have been fully considered but they are not persuasive. The examiner maintains the position it is old and well known to vary the size, shape, cross-sectional area of piston flow through passages dependent upon such

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known factors as the level and "feel" of damping desired, expected piston operational speed, and the viscosity of the fluid chosen. Applicant's seem to acknowledge this on pages 7 and 11 first full paragraphs of the specification.

Therefore, the examiner maintains the position that the ordinary skilled worker in the art would have found it obvious to have arrived at the claimed invention simply by using the known method of varying these through-hole parameters ■ of the orifices in DE '932 as modified by Yamaoka and GB '780.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited has been cited for showing known types of fluid passages. Please see the shapes of the fluid passages 60,4 to Taylor, Etherton

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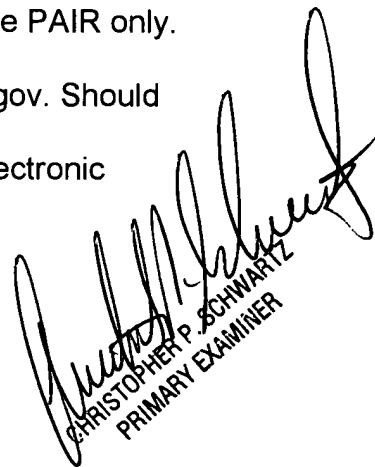
and Vossieck and the discussions regarding these passages. Please review the discussion regarding laminar and turbulent flow in Tokasz, de Carbon and Dressell.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Schwartz whose telephone number is 703-308-0576. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cps  
6/6/05



CHRISTOPHER P. SCHWARTZ  
PRIMARY EXAMINER





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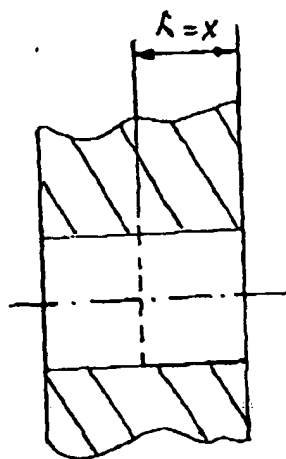


Fig. 7

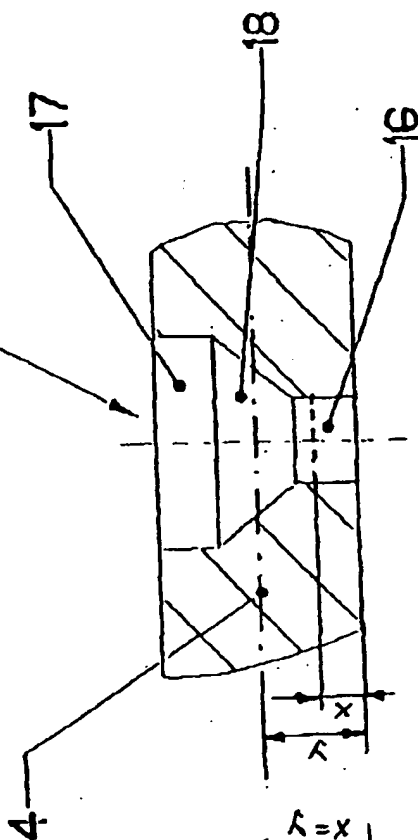


Fig. 8

Approved  
6/6/05